

# CURRICULUM VITAE

## **Dr. Dhaval N Tailor,**

Assistant Professor,  
Department of Electrical Engineering  
A D Patel Institute of Technology  
New Vidyanagar- 388 121  
District-Anand, Gujarat, India  
Mobile: +91-9601290378  
E-mail: tailordhaval@gmail.com



### **Academic Detail**

<b>Examination Passed</b>	<b>University / Board</b>	<b>Year of Passing</b>	<b>Class</b>	<b>Subjects / Discipline</b>
Ph.D.	Gujarat Technological University	2023	-	Power System Protection
M.E.	Gujarat Technological University	2013	DIST	Power System Engineering
B.E.	Sardar Patel University	2010	FIRST	Electrical Engineering
H.S.C.	GSHSEB	2006	DIST	Science

### **Details of Professional Experience**

<b>Name &amp; Address of the Employer</b>	<b>Designation of the post held</b>	<b>Period of Service</b>	<b>Nature of Service</b>
Birla Vishvakarma MahaVidyalaya (BVM), V V Nagar	Ad-hoc	June 2011 Oct. 2011	Ad-hoc Lecturer (4 Months)
A.D. Patel Institute of Technology, New V V Nagar	Pro-term Lecturer	Nov. 2011 Jane 2013	Pro-term Lecturer Full time, (1 Year 6 Month)
A.D. Patel Institute of Technology, New V V Nagar	Assistant Professor	1 <sup>st</sup> July-2013 To Till date	Full time, (9 Years)

### **Sponsored Projects**

- **Design & Development of Digital Protection of Power Transformer**  
Working as Co-PI for a DST (Department of Science & Technology) sponsored project worth **23.86 lakhs duration from June 2017 to June 2020.**
- **Working as Co-Coordinator of AICTE-sponsored IDEA LAB worth of Rs.1.10 crore**  
ADIT is one of the two institutes of Gujarat to receive a grant of about Rs 1.10 crore for AICTE IDEA Lab. A total of 49 colleges are selected throughout INDIA.

## **Involvement in Technical Duties**

- SSIP departmental Co-ordinator
- Member of ISC CVMU Launchpad
- Co-Coordinator of Fab Lab
- College Electrical maintenance in charge

## **Achievements**

- Received **GAURAV PURASKAR** by CVM on 74th Vidyanagar establishment day for a mentoring group of students who secured overall third rank & first rank in all girls' team in Gujarat HACKTHON 2018.
- Secured overall third rank & first rank in all girls' team in Gujarat HACKTHON 2018 under my guidance on "ONLINE POWER MONITORING SYSTEM".
- Selected for final National round from west zone in DRDO army event "DRUSE", which will be held at PUNE on 24<sup>th</sup> -25<sup>th</sup> April 2018 & won 40,000/- price money.
- Design Panel of "Stability enhancement in transmission line using single pole auto reclosing in the three-phase system" using STM32F405 ARM cortex in power system protection lab at ADIT.

## **Projects**

- **Study the out-of-step phenomena along the EHV transmission line**  
ME Dissertation (1 Year)  
Developed MATLAB model to study stability of interconnected power system during small disturbances like Line outage, sudden increase in percentage load, switching of capacitor bank & decrease in generator output.
- **MATLAB Model Simulation of Adaptive Distance Relaying Scheme**  
BE Final Year Project (1 Year)  
Using the Simulink model, developed MATLAB program of an ADAPTIVE DISTANCE RELAY to simulate no load, half load, full load & fault conditions. Quadrilateral characteristic was used in relay operation.

## **Area of Interest**

- Power system protection
- Electrical machine
- Microprocessor & Microcontroller
- ARM processor
- IoT with sensors
- Arduino based programming & hardware interfacing
- Automation using PLC, HMI & Hardware interfacing

## **Projects guided**

- E-Cycle for Garbage Collection
- Online monitoring and protection of induction motor using PLC, HMI and Webpage
- Transformer protection using IoT
- Eye blink-controlled smart wheelchair
- Automated pill packaging and dispensing machine using a controller
- Stamp labelling with colour description using PLC
- Smart office automation
- Power system LOAD MONITORING AND SHARING USING PLC

- Image Processing and PLC-based Automated Object Shorting System
- Greenhouse automation using Android App
- Gesture control home Automation using Android Application
- Automation of Milk Pouch Packaging based on the PLC System
- Automation In Stator winding of AC Machine
- Detection of defects in solid & it's stacking using PLC & HMI
- Gesture Controlled Smart Wheelchair
- Controller-based line protection using auto reclosing scheme
- Automatic generator mains changeover
- Differential protection of transformer using a controller
- Radial Feeder Protection using a controller
- Automated system for Air pollution detection & control
- Automatic Filler machine using PLC.
- Escalator using PLC
- Solar panel tracking using PLC
- Bascule bridge using PLC
- Colour ball sorting machine
- Moto-chair: Assistance for disabled

## Professional Projects

- **Greenhouse Automation System**

Developed a greenhouse automation system which monitored the temperature and humidity of a 40m x 20m wide greenhouse. Based on set parameters, automatic water sprinklers and FD fans control the inside temperature and humidity. It is a user-defined system. The operator can change set parameters and the operating time of sprinklers and fans per weather conditions.

- **LORA-based Security System**

Developed LORA-based remote for seven individual checkpoints, which communicate with a centralized security hub to give intimation regarding suspicious activities. In addition, the remote has the facility of low battery indication and one test switch for checking the connectivity between the remote and the security station.

- **LORA-based automatic water level-controlled system of overhead tank**

Developed LORA-based system for turning on/off the pump, which is about 1 km far from the overhead water tank. The ultrasonic sensor has been used for water level indication.

- **Smart indicator for job completion of writing data on titanium plate**

Developed AC current monitoring-based system that gives alarm and indication through indicator for job completion of writing data on titanium plate. The alarm rang for a few seconds and the indicator remained 'ON' until the second job started.

- **Temperature monitoring & action performed in the server room**

Developed a temperature-based fire safety alarm for the server room. The alarm is 'ON' once the temperature exceeds the predefined temperature and remains 'ON' until the operator presses the alarm 'STOP' button. The system has the facility to change predefined temperature values using the button.

- **Automatic gas fire-controlled system for gas-fired water heater**

Developed a low-cost automatic gas fire control system in which a gas fire burner can be turned on/off based on the predefined temperature of boiling water. The water temperature sensor is used for continuous measurement of boiled water.

- **Time-controlled water sprinkling system for gardening.**

Developed an automatic time-based controlled system for periodically sprinkling water in the garden. Real-time clock (RTC) sensor DS3231 is used for operation. Controller-controlled solenoid valve for periodically sprinkling water.

## **Proficiency**

- Tools : Keil, MATLAB, Power world simulator
- Other Exposure : Embedded C, Simulink and Script file (MATLAB)
- Language Known: English, Hindi, Gujarati

## **Paper Publication**

1. Dhaval Tailor, Vijay H Makwana, “Analysis of Faulted Power System during simultaneous broken and fallen to earth conductor fault”, IETE Journal of Education, Taylor and Francis, DOI:10.1080/09747338.2022.2090454, Volume 64, issue 1,26 June 2022,p.34-40.
2. Dhaval Tailor, Vijay H Makwana, “Transient stability analysis of IEEE 9 bus system using Modified Fourier filter algorithm”, International Conference on Electrical and Electronics Engineering (ICEEE ), January 8-9, 2022, Lecture Notes in Electrical Engineering, Springer, Singapore, Volume 894, p. 218-236. DOI:10.1007/978-981-19-1677-9\_19
3. Dhaval Tailor, Vijay H Makwana, “Analysis of Faulted Power System During Simultaneous Open Conductor and Ground Fault”, IET Generation, Distribution & Transmission”, Volume 14, Issue 22, 13 November 2020, p. 5319 – 5326.
4. Dhaval Tailor, Vijay H Makwana, “Enhancing transient stability of IEEE9 bus system using Modified DFT algorithm-based Auto reclosing scheme”, International Journal of Research and Analytical Reviews, Volume 6, Issue 2, May 2019, p. 935 – 342.
5. Ujval Patel, Dr. Pragnesh Bhatt, Dr.Nilesh Chothani & Dhaval N Tailor, “Novel Auto-Reclosing Scheme with Adaptive Dead Time Control for EHV Transmission Line”, IET Science, Measurement & Technology, Volume12, Issue 8, 01 November 2018, p. 1001 – 1008.
6. Dharmesh Patel, K D Mistry, Dr. Nilesh Chothani & Dhaval N Tailor, “Adaptive Algorithm for Distribution Transformer Protection to Improve Smart Grid Stability”, International Journal of Emerging Electric Power Systems, Volume 19, Issue 5, published on 04-Aug-2018
7. Ujval Patel, Dr. Pragnesh Bhatt, Dr.Nilesh Chothani & Dhaval N Tailor, “Emulation of Auto-Reclosing Scheme with Adaptive Dead Time Control for Transmission Line Protection” , Electric Power Components and Systems, Received 19 Feb 2017, Accepted 16 Jan 2019, Published online: 04 Mar 2019.
8. Dhaval N Tailor, Sejal Shah & Kunal Aaswani, July 2017 “GREEN HOUSE AUTOMATION USING ANDROID APPLICATION”, International Journal of Engineering and Technology (IJET), Volume 9 No 3S, Page: 355-360.
9. Dhaval Tailor, Vivek Kamani, Ankit Ghetiya, Naresh Bhatiya, July 2017 “Object Sorting and Stacking Automation With PLC”, International Journal of Engineering and Technology (IJET), Volume 9 No 3S, Page:197-201.
10. Ishant Sharma, Tarak Patel & Dhaval Tailor, June 2016,” Differential Protection of Transformer Using Arduino”, International Journal of Innovative and Emerging Research in Engineering, Volume 3, Issue 7, Page:7-16
11. Ishant Sharma, Tarak Patel & Dhaval Tailor, June 2016 “Radial Feeder Protection using Arduino”, International Journal of Innovative and Emerging Research in Engineering, Volume 3, Issue 7, Page:17-25.
12. Anshul V Patel, Dr. P H Shah, Prof. D N Tailor, November 2015, “Automated system for Air pollution detection & control” International Journal of emerging technology & Advanced Engineering, Volume5, Issue-11 Page: 104-109.
13. Maitrey Trivedi, Pragnesh H Shah & Dhaval Tailor, July 2014, “An Analysis of a Home Automation System using Universal Infrared Remote Control Scheme”, International Journal of Advance Engineering & Research Development, Volume 1, Issue 7, Page:23-29.
14. Dhaval N Tailor, Vatsal Shah & Jayna Donga, April 2014 “Effect of small disturbances on Inter-

connected system “International Journal of Advance Engineering and Research Development, Volume 1, Issue 3, Page:86-90.

15. Brijesh M. Patel, Minesh k. Joshi & Dhaval N. Tailor, Oct-2013 “Design and Simulation of Boost Converter for Constant Output Voltage”, International Journal of Emerging Trends in Electrical & Electronics, Volume 8, Issue 1, Page:19-24.
16. Dhaval N Tailor, Dr. Bhavesh Bhalja, Dr. Vijay Makwana, February 2012,“ Roll of PSS and SVC for improving the Transient Stability of Power System” International Journal of Engineering & Advanced Technology, Volume-1, Issue-3, Page: 137-140.

### ***Delivered Expert lecture***

1. I delivered an expert talk in the one-day workshop “ARDUINO boards for beginners”, on 21<sup>st</sup> March 2018 at GCET, organized by the computer department.
2. I delivered an expert talk in one day workshop, “ARDUINO board & its applications”, on 24<sup>th</sup> February 2018 at GCET, organized by the IT department.
3. I delivered an expert talk in a one-day workshop, “Hands-on practice ARDUINO board”, on 18<sup>th</sup> March 2017 at Birla Vishvakarma Vidhyalay (BVM), Vidyanagar organized by the IT department.

### ***Workshops organized***

<b>Sr. No.</b>	<b>Workshop Title</b>	<b>Year</b>	<b>Organized by</b>
1	Three days’ Workshop on DVP14SS2 DELTA make PLC & HMI	24th to 26th March, 2018	Mr. Dhaval N Tailor EE department, ADIT
2	Two day’s workshop on hands on practice on STM32F429 Discovery board	2nd – 3rd March, 2017	Mr. Dhaval N Tailor EE department, ADIT
3	ISTE sponsored “Two-day hands-on workshop on DVP14S502 DELTA make PLC	3rd -4th September, 2016	Mr. Dhaval N Tailor Mr. Jigar Mistry EE department, ADIT
4	One day workshop on Automation using programmable logic controller	1st August,2105	Mr. Dhaval N Tailor EE department, ADIT
5	“One-week STTP on Design & Development of Embedded system	30th march– 4th April, 2015	Mr. Dhaval N Tailor EE department, ADIT

### ***Details of any other innovations / activity involved***

- 1) Lifetime member of ISTE chapter
- 2) Department coordinator of ISTE student chapter for last year
- 3) Applied for Lifetime member of IE (India) chapter

## ***Personal Particulars***

Date of birth : 13<sup>th</sup> November, 1988  
Marital Status : Married  
Permanent Address : 4, 'satsang',  
Sahajanand society,  
Behind Swaminarayan temple,  
Jitodiya, Anand-388001  
Contact Details : +91-9601290378  
E-mail : [tailordhaval@gmail.com](mailto:tailordhaval@gmail.com)